

1059-18-7

Guy Roger Biyogmam* (biyogmam@nmsu.edu), Mathematical Sciences Department 3MB, Box 30001, New Mexico State University, Las Cruces, NM 88003. *On the Leibniz (Co)Homology of an Abelian Extension of the Orthogonal Lie Algebras*. Preliminary report.

The Lie algebra of the affine orthogonal Lie group is an abelian extension of the orthogonal Lie algebra. We compute its Leibniz (co)homology. It is computed via the identification of certain new orthogonal invariants and shown to be an algebra generated by an $n - 1$ -fold tensor and an n -fold tensor. (Received November 04, 2009)